

What is claimed is:

1. An electric actuator comprising a driving force-transmitting belt for transmitting rotary driving force of a rotary driving source to a slider, and a tension-adjusting mechanism for adjusting tension of said driving force-transmitting belt, said tension-adjusting mechanism comprising:

a first member to which one end of said driving force-transmitting belt is connected;

a second member to which another end of said driving force-transmitting belt is connected and which is provided displaceably in an axial direction with respect to said first member;

an adjusting member which adjusts a distance between said first member and said second member; and

an elastic member which is provided between said adjusting member and said first member or between said adjusting member and said second member,

wherein said first member is fixed on said slider, and an axis of said adjusting member is disposed within a cross section of said driving force-transmitting belt perpendicular to said axis.

2. The electric actuator according to claim 1, wherein indication means is provided on said second member for displaying a displacement amount of said adjusting

member.

3. The electric actuator according to claim 1,
wherein ends of said driving force-transmitting belt are
engaged with engaging grooves formed on said first member
and said second member corresponding to shapes of parallel
teeth of said driving force-transmitting belt, and said ends
are interposed between said first member and a first fixing
member and between said second member and a second fixing
member.

4. The electric actuator according to claim 1,
wherein said second member has a pair of two branches near
said first member, engaging holes are formed through said
two branches, lock screws engage with said engaging holes
and are screwed with said first member.

5. The electric actuator according to claim 1,
wherein said first member has a pair of two branches near
said second member, engaging holes are formed through said
second member, lock screws engage with engaging holes and
are screwed with said two branches.

6. The electric actuator according to claim 1,
wherein said adjusting member comprises an adjusting screw
which is screwed with said first member, and a plurality of
insertion holes are formed in a circumferential surface of a

head of said adjusting screw.

7. The electric actuator according to claim 1,
wherein center lines of one end and the other end of said
5 driving force-transmitting belt and said axis of said
adjusting member are arranged on a straight line.

8. The electric actuator according to claim 1,
wherein said first member has a fastening section, into
10 which said driving force-transmitting belt is inserted, and
a thickness of said fastening section is smaller than a
thickness of a retaining section formed near said second
member adjacently to said fastening section.

9. The electric actuator according to claim 1,
wherein a fastening section, into which said driving force-
15 transmitting belt is inserted, is formed on said second
member, and a thickness of said fastening section is smaller
than a thickness of a retaining section formed near said
20 first member adjacently to said fastening section.

10. The electric actuator according to claim 1,
wherein said first member and said second member are formed
by pressing.

25 11. An electric actuator comprising a driving force-
transmitting belt for transmitting rotary driving force of a

rotary driving source to a slider, and a tension-adjusting mechanism for adjusting tension of said driving force-transmitting belt, said tension-adjusting mechanism comprising:

5 a first member which is installed to said slider and to which one end of said driving force-transmitting belt is connected;

 a second member to which another end of said driving force-transmitting belt is connected and which is
10 displaceable in an axial direction with respect to said first member;

 lock members which are rotatably supported by said first member and said second member about support points of ends of said lock members; and

15 engaging members which are formed with step sections and which are installed to said ends of said driving force-transmitting belt,

 wherein engaging sections of said lock members are engaged with said step sections by rotation of said lock
20 members, and said driving force-transmitting belt is fastened to said first member and said second member by said engaging members.

12. The electric actuator according to claim 11,
25 wherein said engaging sections are formed on said lock members, said engaging sections press said engaging members toward said driving force-transmitting belt by rotation of

said lock members, and said driving force-transmitting belt is fixed to said first member and said second member.

13. The electric actuator according to claim 11,
5 wherein a tapered surface is formed on said engaging member, said tapered surface is inclined to be gradually wide in width in a direction from said step section to said driving force-transmitting belt.

10 14. The electric actuator according to claim 11, wherein first attachment flange sections and second attachment flange sections are formed on said first member and said second member, said lock members are rotatably supported on said first attachment flange sections and said
15 second attachment flange sections, respectively, and a pair of pawls, which are inclined to approach one another in directions from said first attachment flange sections and said second attachment flange sections to a center of each of said first member and said second member, are formed,
20 respectively.

15. The electric actuator according to claim 14, wherein a distance between said pair of pawls is smaller than a width of each of said lock members.

25 16. The electric actuator according to claim 11, wherein each of said lock members has a curved section which

has a substantially circular arc-shaped cross section and which is formed at an end opposite to an end at which said engaging section is formed.

5 17. The electric actuator according to claim 11, wherein said first member and said second member are formed by pressing.

10 18. An electric actuator comprising a driving force-transmitting belt for transmitting rotary driving force of a rotary driving source to a slider, and a tension-adjusting mechanism for adjusting tension of said driving force-transmitting belt, said tension-adjusting mechanism comprising:

15 a first member which is installed to said slider and to which one end of said driving force-transmitting belt is connected;

20 a second member to which another end of said driving force-transmitting belt is connected and which is displaceable in an axial direction with respect to said first member;

 an adjusting member which adjusts a distance between said first member and said second member;

25 an elastic member which is provided between said adjusting member and said first member;

 lock members which are rotatably supported by said first member and said second member about support points of

ends of said lock members; and

engaging members which are formed with step sections and which are installed to said ends of said driving force-transmitting belt,

5 wherein an axis of said adjusting member is disposed within a cross section of said driving force-transmitting belt perpendicular to said axis, engaging sections of said lock members are engaged with said step sections by rotation of said lock members, and said driving force-transmitting
10 belt is fastened to said first member and said second member by said engaging members.

19. The electric actuator according to claim 18,
15 wherein said engaging sections press said engaging members toward said driving force-transmitting belt by rotation of said lock members, and said driving force-transmitting belt is fixed to said first member and said second member.

20. The electric actuator according to claim 18,
20 wherein said adjusting member comprises an adjusting screw which is screwed with said first member, and a plurality of insertion holes are formed in a circumferential surface of a head of said adjusting screw.